

CLAIMS

What is claimed as new and desired to be protected by Letters Patent of the United States is:

1. A method for providing spatial sound data associated with an object in a scene for a virtual environment, comprising:

determining at least one of position, distance and direction for the object in regard to a point of view in the scene;

recording spatial sound data in at least two channels of an audio file associated with the object, wherein the recorded spatial sound data is based at least in part on at least one of position, distance, and direction of the object in regard to the point of view in the scene; and

playing the spatial sound data in at least one of the at least two channels of the audio file associated with the object, wherein the playing of the spatial sound data simulates sound associated with the object from the point of view in the scene.

2. The method of Claim 1, wherein the point of view is at least one of a character in the scene, a third person perspective, and another character in the scene.

3. The method of Claim 1, further comprising determining a type of the object based at least in part on the point of view in the scene.

4. The method of Claim 3, wherein if the type of the object is at least one of stationary and slow moving, further comprising recording spatial near sound data in one channel of the audio file and recording spatial far sound data in another channel of the audio file.

5. The method of Claim 4, further comprising employing a low pass filter to generate spatial far sound data and employing a high pass filter to generate spatial near sound data.

6. The method of Claim 3, wherein if the type of the object is directional, further comprising recording spatial forward sound data in one channel of the audio file and recording spatial rearward sound data in another channel of the audio file.

7. The method of Claim 3, wherein if the type of the object is fast moving, further comprising employing the distance, position and direction of the object in regard to the point of view to record spatial approaching sound data in one channel of the audio file and record spatial rearward sound data in another channel of the audio file.

8. The method of Claim 7, wherein the spatial approaching sound data is played in one sound amplification device and the spatial rearward sound data is played in another sound amplification device.

9. The method of Claim 1, further comprising mixing the spatial sound data in the at least two channels of the audio file based at least in part on distance, position and direction of the object in regard to at least in part the point of view and a type of the object.

10. The method of Claim 9, wherein the mixing further comprises performing at least one of linear mixing, parametric mixing, and spectrum analyzer mixing.

11. The method of Claim 9, wherein the mixing further comprises performing at least one of cross fading and blending of the at least two channels of the audio file.

12. The method of Claim 1, wherein the audio file further includes a format of at least one of Windows Audio Video (WAV), Audio Interchange File Format (AIFF), MPEG (MPX), Sun Audio (AU), Real Networks (RN), Musical Instrument Digital Interface (MIDI), QuickTime Movie (QTM), and AC3.

13. The method of Claim 1, wherein the virtual environment is at least one of a video game, chat room, and a virtual world.

14. A method for recording spatial data for sound associated with an object in a scene for a virtual environment, comprising:

determining a type of the object based at least in part on a point of view in the scene; and

determining at least one of position, distance and direction for the object in regard to the point of view in the scene;

recording spatial sound data in at least two channels of an audio file associated with the object, wherein the recorded spatial sound data is based at least in part on at least one of position, distance, and direction of the object in regard to the point of view in the scene.

15. A method for playing spatial sound data associated with an object in a scene for a virtual environment, comprising:

mixing spatial sound data in at least two channels of an audio file based at least in part on distance, position and direction of an object in regard to a point of view in the scene; and

playing the mixed spatial sound data in at least one of the at least two channels of the audio file associated with the object, wherein the playing of the spatial sound data is based at least in part on distance, position and direction of the object in regard to the point of view in the

scene, and wherein the playing of the spatial sound data enables the simulation of sound associated with the object from the point of view in the scene.

16. A server for enabling the playing of spatial sound data associated with an object in a scene in a virtual environment, comprising:

a memory for storing data; and

an audio engine for performing actions, including:

enabling the determining of at least one of position, distance and direction for the object based at least in part on a point of view in the scene and a type of the object;

enabling the recording of spatial sound data in at least two channels of an audio file associated with the object, wherein the recorded spatial sound data is based at least in part on at least one of position, distance, and direction of the object; and

enabling the playing of the spatial sound data in at least one of the at least two channels of the audio file associated with the object, wherein the playing of the spatial sound data simulates sound associated with the object from the point of view in the scene.

17. The server of Claim 16, wherein if the type of the object is at least one of stationary and slow moving, further comprising recording spatial near sound data in one channel of the audio file and recording spatial far sound data in another channel of the audio file.

18. The server of Claim 16, wherein if the type of the object is directional, further comprising recording spatial forward sound

data in one channel of the audio file and recording spatial rearward sound data in another channel of the audio file.

19. The server of Claim 16, wherein if the type of the object is fast moving, further comprising employing the distance, position and direction of the object in regard to the point of view to record spatial approaching sound data in one channel of the audio file and record spatial rearward sound data in another channel of the audio file.

20. The server of Claim 16, further comprising mixing the spatial sound data in the at least two channels of the audio file is based at least in part on distance, position and direction of the object in regard to at least the point of view and the type of the object.

21. A client for enabling the playing of spatial sound data associated with an object in a scene in a virtual environment, comprising:

a memory for storing data; and

an audio engine for performing actions, including:

enabling the determining of at least one of position, distance and direction for the object based at least in part on a point of view in the scene and a type of the object;

enabling the recording of spatial sound data in at least two channels of an audio file associated with the object, wherein the recorded spatial sound data is based at least in part on at least one of position, distance, and direction of the object; and

enabling the playing the spatial sound data in at least one the at least two channels of the audio file associated with the object,

wherein the playing of the spatial sound data simulates sound associated with the object from the point of view in the scene.

22. The client of Claim 21, wherein if the type of the object is at least one of stationary and slow moving, further comprising recording spatial near sound data in one channel of the audio file and recording spatial far sound data in another channel of the audio file.

23. The client of Claim 21, wherein if the type of the object is directional, further comprising recording spatial forward sound data in one channel of the audio file and recording spatial rearward sound data in another channel of the audio file.

24. The client of Claim 21, wherein if the type of the object is fast moving, further comprising employing the distance, position and direction of the object in regard to the point of view to record spatial approaching sound data in one channel of the audio file and record spatial rearward sound data in another channel of the audio file.

25. The client of Claim 21, further comprising mixing the spatial sound data in the at least two channels of the audio file is based at least in part on distance, position and direction of the object in regard to at least the point of view and the type of the object.

26. A carrier wave signal that includes data for performing actions, comprising:

enabling a determination of at least one of position, distance and direction for an object based at least in part on a point of view in a scene of a virtual environment and a type of the object;

enabling the recording of spatial sound data in at least two channels of an audio file associated with the object, wherein the

recorded spatial sound data is based at least in part on at least one of position, distance, and direction of the object; and

enabling the playing the spatial sound data in at least one of the at least two channels of the audio file associated with the object, wherein the playing of the spatial sound data simulates sound associated with the object from the point of view in the scene.